BOARD OF PATENT APPEALS AND INTERFERENCES
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	Howard Lutnick, *et. al.*		
Application No.	:	10/767,588	Confirmation No. :	6169
Filed	:	January 29, 2004		
For	:	SYSTEMS AND METHODS FOR ROUTING A TRADING ORDER TO A PRICE		
Group Art Unit	:	3695		
Examiner	:	Thu Thao Havan		

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Sir:

This is an appeal from the decision of Examiner Thu Thao Havan, Group Art Unit 3695, in the Final Office Action of October 23, 2008 ("Final Office Action"), rejecting claims **19, 20, 25-28, 31** and **53-66** in the present application. A Notice of Appeal was filed on February 23, 2009.

Applicants herewith request a **three-month** extension of time, which extends the time to file this paper to July 23, 2009.

The Commissioner is hereby authorized to charge the filing fee and the **three-month** extension of time fee, as well as any additional fees which may be required, or credit any overpayment, to Deposit Account No. 50-3938.

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I. REAL PARTY IN INTEREST

The real party in interest of the present application is BGC Partners, Inc., a corporation organized and existing under the laws of the State of Delaware, U.S.A., and having a place of business at 499 Park Avenue, New York, NY 10022.

II. RELATED APPEALS AND INTERFERENCES

- There are no known interferences.

- The following related applications are under appeal before the Board:

    - An Appeal Brief was filed on May 22, 2009 for Application No. 10/767,699, entitled "System and Method for Controlling the Disclosure of a Trading Order." No decision has been rendered by a court or the Board.

    - An Appeal Brief was filed on June 29, 2009 for Application No. 10/767,546, entitled "System and Method for Routing a Trading Order." No decision has been rendered by a court or the Board.

III. STATUS OF CLAIMS

The following claims are pending and stand rejected in the present application:

- Independent claims **19, 53,** and **60**.
- Dependent claims **20, 25-28, 31, 54-59** and **61-66**.

The following claims are being appealed:

- Independent claims **19, 53,** and **60**.
- Dependent claims **20, 25-28, 31, 54-59** and **61-66**.

The following claims were previously cancelled:

- Claims **1-18, 21-24, 29-30** and **32-52.**

IV. STATUS OF AMENDMENTS

No amendments have been filed after the Final Office Action of October 23, 2008.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The presently claimed invention(s) generally relate to computer implemented methods for allowing traders to switch between multiple issues in trading quadrants.

A. Independent Claims 19, 53 and 60

Independent claim **19** is directed at a method that comprises receiving an order for a quantity of a trading product. *See, e.g.,* Specification, p. 15, lines 5-7. A plurality of market centers that are able to match the order is identified. *See, e.g., id.* at p. 15, lines 9-11. For each market center, a respective price for the order is received. *See, e.g., id.* at p. 15, lines 18-25. Each of the received prices is compared to determine a best price for the order. *See, e.g., id.* at p. 15, line 28-p. 16, line 7. A respective best price policy for each market center is determined. *See, e.g., id.* The respective best price policy indicates an action that is taken by the market center in response to the best price. *See, e.g., id.* at p. 16, lines 10-17. The received price of each market center is adjusted in accordance with the respective best price policy of the market center. *See, e.g., id.*. Based on the adjusted price of each market center, a market center from the plurality of market centers is selected. *See, e.g., id.* at p. 18, lines 6-11. The method further comprises routing the order to the selected market center. *See, e.g., id.* at p. 18, lines 21-23.

Independent claim **53** is directed at an apparatus that comprises a processor and a memory. *See, e.g., id.* at p. 3, lines 7-8. The memory stores instructions which, when executed by the processor, direct the processor to perform the act of receiving an order for a quantity of a trading product. *See, e.g., id.* at p. 15, lines 5-7. A plurality of market centers that are able to match the order is identified. *See, e.g., id.* at p. 15, lines 9-11. For each market center, a respective price for the order is received. *See, e.g., id.* at p. 15, lines 18-25. Each of the received prices is compared to determine a best price for the order. *See, e.g., id.* at p. 15, line 28-p. 16, line 7. A

respective best price policy for each market center is determined. *See, e.g., id.* The respective best price policy indicates an action that is taken by the market center in response to the best price. *See, e.g., id.* at p. 16, lines 10-17. The received price of each market center is adjusted in accordance with the respective best price policy of the market center. *See, e.g., id.* Based on the adjusted price of each market center, a market center from the plurality of market centers is selected. *See, e.g., id.* at p. 18, lines 6-11. The method further comprises routing the order to the selected market center. *See, e.g., id.* at p. 18, lines 21-23.

Independent claim **60** is directed at an article of manufacture that comprises a storage medium. *See, e.g., id.* at p. 3, lines 7-8. The storage medium stores instructions which, when executed by a processor, direct the processor to perform the act of receiving an order for a quantity of a trading product. *See, e.g., id.*at p. 15, lines 5-7. A plurality of market centers that are able to match the order is identified. *See, e.g., id.* at p. 15, lines 9-11. For each market center, a respective price for the order is received. *See, e.g., id.* at p. 15, lines 18-25. Each of the received prices is compared to determine a best price for the order. *See, e.g., id.* at p. 15, line 28-p. 16, line 7. A respective best price policy for each market center is determined. *See, e.g., id.*, The respective best price policy indicates an action that is taken by the market center in response to the best price. *See, e.g., id.* at p. 16, lines 10-17. The received price of each market center is adjusted in accordance with the respective best price policy of the market center. *See, e.g., id.* Based on the adjusted price of each market center, a market center from the plurality of market centers is selected. *See, e.g., id.* at p. 18, lines 6-11. The method further comprises routing the order to the selected market center. *See, e.g., id.* at p. 18, lines 21-23.

B. Dependent Claims 25, 55 and 62.

In the method of claim **25**, which depends from claim **19**, the method further comprises determining that the best price policy for at least one of the market centers includes a policy to

match the best price. *See, e.g., id.* at p. 17, lines 8-19. The method also comprises setting the price of the at least one market center to the best price. *See, e.g., id.*

In the apparatus of claim **55**, which depends from claim **53**, the memory further stores instructions which, when executed by the processor, direct the processor to perform the acts of claim **25**. *See, e.g., id.*

In the article of manufacture of claim 62, which depends from claim **60**, the storage medium further stores instructions which, when executed by the processor, direct the processor to perform the acts of claim **25**. *See, e.g., id.*

C. Dependent Claims 26, 56 and 63.

In the method of claim **26**, which depends from claim **19**, the method further comprises determining that the best price policy for at least one of the market centers includes a policy to split the best price. *See, e.g., id.* at p. 17, lines 20-30. The method further comprises calculating an average of a best bid price defined by the best price and a best offer price defined by the best price. *See, e.g., id.* The method also comprises setting the price of the at least one market center to the calculated average. *See, e.g., id.*

In the apparatus of claim **56**, which depends from claim **53**, the memory further stores instructions which, when executed by the processor, direct the processor to perform the acts of claim **26**. *See, e.g., id.*

In the article of manufacture of claim **63**, which depends from claim **60**, the storage medium further stores instructions which, when executed by the processor, direct the processor to perform the acts of claim **26**. *See, e.g., id.*

D. Dependent Claims 27, 57 and 64.

In the method of claim **27**, which depends from claim **19**, the method further comprises determining that at least one market center charges a transaction cost. *See, e.g., id.* at p. 20, lines 15-20. The method also comprises adjusting the price of the at least one market center in accordance with the transaction cost. *See, e.g., id.*

In the apparatus of claim **57**, which depends from claim **53**, the memory further stores instructions which, when executed by the processor, direct the processor to perform the acts of claim **27**. *See, e.g., id.*

In the article of manufacture of claim **64**, which depends from claim **60**, the storage medium further stores instructions which, when executed by the processor, direct the processor to perform the acts of claim **27**. *See, e.g., id.*

E. Dependent Claims 31, 59 and 66.

In the method of claim **31**, which depends from claim **19**, the method further comprises determining that the selected market center offers at least one of a highest price for buying the quantity of the trading product, and a lowest price for selling the quantity of the trading product. *See, e.g., id.* at p. 18, lines 11-23.

In the apparatus of claim **59**, which depends from claim **53**, the memory further stores instructions which, when executed by the processor, direct the processor to perform the acts of claim **31**. *See, e.g., id.*

In the article of manufacture of claim **66**, which depends from claim **60**, the storage medium further stores instructions which, when executed by the processor, direct the processor to perform the acts of claim **31**. *See, e.g., id.*

F. Dependent Claims 20, 54 and 61.

In the method of claim **20**, which depends from claim **19**, in which the order comprises one of: a request to buy the quantity of the trading product and a request to sell the quantity of the trading product. *See, e.g., id.* at p. 8, lines 16-20.

In the apparatus of claim **54**, which depends from claim **53**, the memory further stores instructions which, when executed by the processor, direct the processor to perform the acts of claim **20**. *See, e.g., id.*

In the article of manufacture of claim **61**, which depends from claim **60**, the storage medium further stores instructions which, when executed by the processor, direct the processor to perform the acts of claim **20**. *See, e.g., id.*

G. Dependent Claims 28, 58 and 65.

In the method of claim **28**, which depends from claim **19**, the method further comprises determining that at least one market center credits a transaction rebate. *See, e.g., id.* at p. 20, lines 20-26. The method also comprises adjusting the price of the at least one market center in accordance with the transaction rebate. *See, e.g., id.*

In the apparatus of claim **58**, which depends from claim **53**, the memory further stores instructions which, when executed by the processor, direct the processor to perform the acts of claim **28**. *See, e.g., id.*

In the article of manufacture of claim **65**, which depends from claim **60**, the storage medium further stores instructions which, when executed by the processor, direct the processor to perform the acts of claim **28**. *See, e.g., id.*

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds for rejection to be reviewed on appeal are whether:

- Independent claims **19, 53** and **60**, and dependent claims **20, 25-28, 31, 53-57** and **59-66**, are anticipated by 35 U.S.C. §102(e) over U.S. Publication No. 20040236662 (hereinafter "Korhammer")

- Dependent claims **25, 26, 27, 31, 53-57** and **59-66**

- Dependent claims **28** and **58** are unpatentable under 35 U.S.C. §103(a) over Korhammer in view of U.S. Publication No. 20040210505 (hereinafter "Pourhamid").

VII. ARGUMENT

A. Summary of Argument

The Examiner rejected all of claims **19, 20, 25-28, 31, 53-57** and **59-66** under 35 U.S.C. § 102 as being anticipated by Korhammer. Final Office Action, pp. 2-4. However, no *prima facie* case of anticipation has been proven for any of the claims, as the Examiner repeatedly fails to show that all of the limitations in a claim are taught by the prior art.

For example, with respect to independent claims **19, 53** and **60,** the Examiner appears to have misunderstood the language of the claims, which recite, *inter alia*,

> *... determining a respective best price policy for each market center in which the respective best price policy indicates an action that is taken by the market center in response to the best price;*
>
> *adjusting the received price of each market center in accordance with the respective best price policy of the market center..*

Id. (emphasis added)

In his rejection, the Examiner argues that Korhammer teaches these limitations because:

> Korhammer discloses [an] agreement as corresponding to [the] policy as claimed... Korhammer discloses change [sic] [a] market maker bid corresponding [sic] to adjusting [the] price of each market center.

Final Office Action, pp. 2-3.

However, the Examiner is mistaken. There is no discussion or suggestion, whatsoever, in the cited-portions of Korhammer of a "*best price policy*" that is adopted by a market center or an adjustment to a "*received price*" in accordance to "*a best price policy*".

At best, Korhammer describes a pre-existing agreement between two users to enter into direct trades with each other and changing the price level of a market maker quote or intention to trade message. Both of these descriptions are irrelevant to claims **19, 53** and **60**, and as such, they cannot satisfy the *prima facie* requirement of anticipation under 35 U.S.C. § 102. Nor can they satisfy the *prima facie* requirement of obviousness under 35 U.S.C. § 103 either.

Because the Examiner fails to show that all the limitations of independent claims **19, 53** and **60** are taught by Korhammer, he fails to establish a *prima facie* case of anticipation and obviousness with respect to these claims. The rejection of independent claims **19, 53** and **60** (and claims **20, 25-28, 54-59, 61-65**, which depend, respectively, therefrom) is thereby improper.

The Examiner also rejected claims **28** and **58** under 35 U.S.C. § 103(a) as being obvious over Korhammer in view of Pourhamid. Final Office Action, pp. 4-5. However, no *prima facie* case of obviousness has been proven for either claim, as the Examiner fails to show that all of the limitations in a claim are taught by the prior art.

For example, nor where in the cited portions of Korhammer and Pourhamid is there a teaching or suggestion of "*adjusting the price of the at least one market center in accordance with the transaction rebate*," as recited by claims **28** and **58**. At best, the cited-portions of Pourhamid describe subtracting the "amount of credits in [a] temporary file" from the "amount of credits in [an] original file." Pourhamid, para. 43. However, this description has absolutely no relevance to the claimed feature of claims **28** and **58**.

Moreover, the Examiner fails to provide any motivation for modifying Korhammer with Pourhamid, much less provide any evidence for such motivation All factual findings of the Patent and Trademark Office must be supported by substantial evidence. Since motivation to modify is a factual finding, it must be supported by some evidence. Because the Examiner does not provide any evidence to support the motivation to modify Korhammer with Pourhamid, he has not established a *prima facie* case of obviousness with respect of claims **28** and **58**.

B. Rejection Under 35 U.S.C. § 102(e)

1. Legal Standard

If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more, the Applicants are entitled to a grant of the patent. *In re* Oetiker, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

As stated by the Federal Circuit (and affirmed in MPEP § 2131), a prior art reference anticipates a patent claim only if it expressly or inherently describes "each and every limitation" set forth in the patent claim. *See* Trintec Indus., Inc. v. Top-U.S.A. Corp., 295 F.3d 1292, 1295 (Fed. Cir. 2002); MPEP § 2131. Inherent anticipation requires that the missing descriptive material is "necessarily present," not merely probably or possibly present, in the prior art. Trintec at 1295.

Referring to a preceding claim in order to define a limitation is an acceptable claim form that should not necessarily be rejected as improper or confusing. *Ex parte* Porter, 25 USPQ2d 1144 (Bd. Pat. App. & Inter. 1992). As stated in MPEP 2173.05(p)(I), "[a] claim to a device, apparatus, manufacture, or composition of matter may contain a reference to the process in

which it is intended to be used without being objectionable, so long as it is clear that the claim is directed to the product and not the process." *See* In re Luck, 476 F.2d 650, 177 USPQ 523 (CCPA 1973); Scripps, 927 F.2d at 1583; and Microprocessor Enhancement, 520 F.3d at 1375 (upholding a claim directed to a pipelined processor capable of performing various recited functions).[1]

2. First Group: Independent Claims 19, 53 and 60 – No *Prima Facie* Showing of Anticipation

The Examiner fails to show that all of the limitations of independent claims **19, 53** and **60** are taught by the prior art.

Independent claims **19, 53** and **60** are directed, respectively, to a method, an apparatus and an article of manufacture that describe, *inter alia*,

> *... determining a respective best price policy for each market center in which the respective best price policy indicates an action that is taken by the market center in response to the best price;*
>
> *adjusting the received price of each market center in accordance with the respective best price policy of the market center...*

Id. (emphasis added).

a. *The Examiner has ignored the "determining a respective best price policy" limitation of claims19, 53 and 60.*

[1] The claim upheld by the Microprocessor Enhancement court is claim 7 of U.S. Patent No. 5,471,593, which states: "7. A pipelined processor for executing instructions comprising: a conditional execution decision logic pipeline state, ... ; . . . ; the conditional execution decision logic pipeline stage performing a boolean algebraic evaluation of the condition code and said conditional execution specifier and producing an enable-write with at least two states . . . ." 520 F.3d at 1371.

In his rejection, the Examiner asserts that paragraphs 36, 37, 65, 68 and 69 of Korhammer teach the limitation "*determining a respective best price policy for each market center, in which the respective best price policy indicates an action that is taken by the market center in response to the best price*" for the following reason:

> … para. 0036-0037, 0065, and 0068-0069; Korhammer discloses [an] agreement as corresponding to [the] policy as claimed.

Final Office Action, p. 2.

The Examiner is mistaken. There is no teaching or suggestion, whatsoever, in paragraphs 36, 37, 65, 68 and 69 of Korhammer of "*a best price*" or a "*best price policy*" that is adopted by a market center. Rather, the cited-portions of Korhammer describe, *inter alia,* the following:

> … in the embodiments of the present invention, the traders can automatically buy and sell undisclosed liquidity quantities amongst themselves pursuant to bilateral agreements (hereinafter user-to-user direct trades). Such user-to-user direct trades provide a number of advantages. For example, such trades allow the user to select their trading partners, the traders will not affect the market price of the traded securities, and the trades allow the user to eliminate fees paid to ECN's or exchanges.

See, Korhammer, para. 65 (emphasis added).

The Examiner's rejection clearly requires further explanation-- the cited portions provide no suggestion, whatsoever, as to why a "direct user-to-user agreement" directed at indicating "an agreement between at least two users to enter into direct trades" would disclose or suggest "*determining a respective best price policy for each market center*," as recited by claims **19, 53** and **60**.

At best, Korhammer describes a pre-existing agreement between two users to enter into direct trades with each other. *See,* Korhammer, para. 65, 68. But "direct user-to-user agreements" are irrelevant to Applicants' claimed invention, and therefore cannot satisfy the *prima facie* requirement of anticipation under 35 U.S.C. § 102.

Furthermore, the cited-portion of Korhammer also fails to provide any suggestion of "*determining a respective best price policy for each market center,*" and as such, it cannot satisfy the *prima facie* requirement of obviousness under 35 U.S.C. § 103 either.

Because the Examiner fails to show that all the limitations of independent claims **19, 53** and **60** are taught or suggested by Korhammer, he fails to establish a *prima facie* case of anticipation and obviousness with respect to these claims. The rejection of independent claims **19, 53** and **60** (and claims **20, 25-28, 54-59, 61-65**, which depend, respectively, therefrom) is thereby improper.

b. ***The Examiner has ignored the "adjusting the received price of each market center in accordance with the respective best price policy" limitation of claims19, 53 and 60.***

SEPARATE ARGUMENT OF PATENTABILITY

In his rejection, the Examiner asserts that paragraphs 111 and 116 of Korhammer teach the limitation "*adjusting the received price of each market center in accordance with the respective best price policy of the market center*" for the following reason:

> … para. 0116 and 0111; Korhammer discloses change [sic] [a] market maker bid corresponding [sic] to adjusting [the] price of each market center.

Final Office Action, p. 3.

The Examiner is mistaken. There is no teaching or suggestion, whatsoever, in paragraphs 111 and 116 of Korhammer of a "*best price policy*" that is adopted by a market center, much less an adjustment to a "*received price*" in accordance to "*a best price policy*," as described in claims **19, 53** and **60**.

Rather, paragraphs 111 and 116 of Korhammer describe, in relevant parts:

> For Probe Orders, a user **10** may configure its network process to transmit the entire quantity of the Probe Order into the market according to the Probe Order algorithm described above, and simultaneously, transmit an ITT [intention to trade message] to its permission users for the entire quantity at the current price level at which the probe instruction is working. *As the price level and/or remaining quantity changes, the network process will update the ITT with the new price level and/or quantity.*
>
> ...
>
> ... *market makers frequently update market maker quotes, changing one or more of the bid price, offer price*, reserve quantity, and show quantity. These updated market maker quotes are generally placed by computers, without human user interaction. Nevertheless, a market maker quote update, which, for example, changed only the reserve quantity associated with a given market maker bid, would, in accordance with the present invention, be an order... from a user... which provided undisclosed liquidity (the reserve quantity) to the CCS 100.

Id. at para. 111, 116 (emphasis added).

The Examiner's rejection requires further explanation-- the cited portions provide no suggestion, whatsoever, as to why updating an intention to trade message (ITT) or a market maker quote with a new "price level" or "bid price" would disclose or suggest, in any way, "*adjusting the received price of each market center in accordance with the respective best price*

policy of the market center," as recited by claims **19, 53** and **60**. *See,* Korhammer, para. 111, 116.

Claims **19, 53** and **60** describe a situation in which a market center receives a single order from a trader. The price of this received order is adjusted according to the best price policy of the market center. For example, the market center might have adopted a best price policy that requires "splitting" the best price, and as such, the price of the received order is adjusted by calculating an average of the best bid and best offer prices available in the marketplace.

As described under subsection **B.2.a**, paragraphs 111 and 116 of Korhammer fail to disclose or suggest a best price policy that is adopted by a market center. At best paragraphs 111 and 116 of Korhammer disclose changing the price level of a market maker quote or intention to trade message. Korhammer, para. 111, 116. However, these adjustments are directed at the price of all orders in a class—not an adjustment to a single order from a trader. Thus, paragraphs 111 and 116 fail to disclose or suggest adjusting a price of an single order, much less any adjustments based on a "*best price policy*."

Because the Examiner fails to show that all the limitations of independent claims **19, 53** and **60** are taught or suggested by Korhammer, he fails to establish a *prima facie* case of anticipation and obviousness with respect to these claims. The rejection of independent claims **19, 53** and **60** (and claims **20, 25-28, 54-59, 61-65**, which depend, respectively, therefrom) is thereby improper.

3. Second Group: Claims 25, 55 and 62 – No *Prima Facie* Showing of Anticipation

SEPARATE ARGUMENT OF PATENTABILITY

The Examiner fails to show that all of the limitations of claims **25, 55** and **62** are taught by the prior art.

Claims **25, 55** and **62** are directed, respectively, to a method, an apparatus and an article of manufacture that describe "*determining that the best price policy for at least one of the market center includes a policy to match the best price*" (emphasis added).

The Examiner asserts that paragraph 1 of Korhammer teaches this limitation. Specifically, he states the following:

> Korhammer teaches determining that the best price policy for at least one of the market centers include a policy to match the best price and setting the best price of the at least one market center to the best price (para. 0001).

Final Office Action, p. 3. The Examiner provides no explanation, whatsoever, regarding why paragraph 1 of Korhammer teaches the limitations of claims **25, 55** and **62**.

In fact, it appears that the Examiner has completely misunderstood claims **25, 55** and **62**, as evidenced by the completely unrelated portion of Korhammer that he cites. Paragraph 1 of Korhammer, in its entirety, recites:

> There are currently a number of computer accessible trading systems for financial instruments such as stocks, bonds, commodities, derivatives, FX and other securities. One is the conventional stock exchange system exemplified by the New York Stock Exchange and New York Mercantile Exchange. On such exchanges the market is made for each security by a single registered stock dealer, such as a registered stock specialist, who has a seat on the exchange. In addition to face-to-face and telephone communication to the dealers/specialists on the floor, computers are used to send orders to the dealers/specialists on the exchange floor. Information as to the buy and sell prices (bid/offer prices, respectively) are supplied by the dealer/specialist to the exchange and brokers through the dealer/specialist's trading

> computer terminal. *Electronic orders are matched by the dealer/specialist maintaining an orderly market*. Upon matching an order the dealer/specialist confirms the execution with the trading terminal and a central computer which stores transaction data.

Korhammer at para. 1 (emphasis added).

The Examiner's rejection requires further explanation-- the cited portions provide no suggestion, whatsoever, as to why the matching of orders by a stock dealer would disclose or suggest, in any way, a "*best price policy*" that comprises "*a policy to match the best price*," as recited in claims **25, 55** and **62**.

At best, paragraph 1 of Korhammer describes a stock dealer who matches an order—something that is entirely irrelevant to Applicants' claimed invention, and therefore cannot satisfy the *prima facie* requirement of anticipation under 35 U.S.C. § 102.

Furthermore, the cited-portion of Korhammer also fails to provide any suggestion of "*determining that the best price policy... includes a policy to match the best price*," and as such, it cannot satisfy the *prima facie* requirement of obviousness under 35 U.S.C. § 103 either.

Because the Examiner fails to show that all the limitations of claims **25, 55** and **62** are taught or suggested by Korhammer, he fails to establish a *prima facie* case of anticipation and obviousness with respect to these claims. The rejection of claims **25, 55** and **62** is thereby improper.

4. Third Group: Claims 26, 56 and 63 – No *Prima Facie* Showing of Anticipation

SEPARATE ARGUMENT OF PATENTABILITY

The Examiner fails to show that all of the limitations of claims **26, 56** and **63** are taught by the prior art.

Claims **26, 56** and **63** are directed, respectively, to a method, an apparatus and an article of manufacture that describe "*determining that the best price policy for at least one of the market center includes a policy to split the best price*" which entails calculating an average of "a best bid price" and a "best offer price" (emphasis added).

The Examiner asserts that paragraph 91 of Korhammer teaches this limitation. Specifically, he states the following:

> Korhammer teaches determining that the best price policy for at least one of the market center includes a policy to split the best price; calculating an average of; [sic] a best bid price defined by the best price and a best offer price defined by the best price and setting the price of the at least one market center to the calculated average (para. 0091). *Korhammer discloses [a] split between a messaging system in relation to trading orders*.

Final Office Action, p. 3 (emphasis added).

Again, it appears that the Examiner has misunderstood claims **26, 56** and **63**, as evidenced by the completely unrelated portion of Korhammer that he cites. Paragraph 91 of Korhammer, in its entirety, recites:

> In another embodiment of the present invention, ITTs are not sent to any responding users. Instead, each user sends its ITTs to a central server which provides order matching, trade execution, and trade reporting functionality. In this embodiment, when an ITT is received at the central server from a first user, the central server looks for an overlapping ITT from a second user which the first user has permissioned for user-to-user trading of undisclosed liquidity. If it finds an overlapping ITT, it executes the trade in the overlapping amount, notifies the first and second users that the trade has been executed, and then reports the trade to the appropriate exchange. In certain variants of this embodiment, *the*

> *functionality of the central server can be split between a messaging system, which provides matching, and a trade execution entity, which provides trade execution and reporting*.

Korhammer at para. 91 (emphasis added).

The Examiner's rejection requires further explanation-- the cited portion provides no suggestion, whatsoever, as to why splitting the functionality of a central server would disclose or suggest, in any way, a "*best price policy*" that comprises "*a policy to split the best price*," as recited in claims **26, 56** and **63**.

In fact, paragraph 91 has absolutely no relevance to Applicants' claimed invention. At best, paragraph 91 contains the word "split", which is entirely insufficient to satisfy the *prima facie* requirement of anticipation under 35 U.S.C. § 102.

Furthermore, the cited-portion of Korhammer also fails to provide any suggestion of "*determining that the best price policy... includes a policy to split the best price,*" and as such, it cannot satisfy the *prima facie* requirement of obviousness under 35 U.S.C. § 103 either.

Because the Examiner fails to show that all the limitations of claims **26, 56** and **63** are taught or suggested by Korhammer, he fails to establish a *prima facie* case of anticipation and obviousness with respect to these claims. The rejection of claims **26, 56** and **63** is thereby improper.

5. Fourth Group: Claims 27, 57 and 64 – No *Prima Facie* Showing of Anticipation

SEPARATE ARGUMENT OF PATENTABILITY

The Examiner fails to show that all of the limitations of claims **27, 57** and **64** are taught by the prior art.

Claims **27, 57** and **64** are directed, respectively, to a method, an apparatus and an article of manufacture that describe:

> *...determining that at least one market center charges a transaction cost; and*
> *adjusting the price of the at least one market center in accordance with the transaction cost.*

Id. (emphasis added).

Although the Examiner asserts that Korhammer teaches this limitation, he provides no citation or explanation, whatsoever, in supporting his claim. In his rejection, the Examiner states that,

> Korhammer teaches determining that at least one market center charges a transaction costs [sic]; and adjusting the price of the at least one market center in accordance with the transaction cost ( ).

Final Office Action, p. 3 (emphasis added).

It appears that the Examiner has omitted, by mistake, the intended citations to Korhammer, as evidenced by the empty parenthetical "( )".

Regardless, the Examiner has provided absolutely no evidence, whatsoever, that Korhammer teaches or suggests "*determining that at least one market center charges a transaction cost*" or "*adjusting the price of the at least one market center in accordance with the transaction cost,*" as recited by claims **27, 57** and **64**.

Because the Examiner fails to show that all the limitations of claims **27, 57** and **64** are taught or suggested by Korhammer, he fails to establish a *prima facie* case of anticipation and obviousness with respect to these claims. The rejection of claims **27, 57** and **64** is thereby improper.

6. Fifth Group: Claims 31, 59 and 66 – No *Prima Facie* Showing of Anticipation

SEPARATE ARGUMENT OF PATENTABILITY

The Examiner fails to show that all of the limitations of independent claims **31, 59** and **66** are taught by the prior art.

Claims **31, 59** and **66** are directed, respectively, to a method, an apparatus and an article of manufacture that describe:

> *...determining that the selected market center offers at least one of: a highest price for buying the quantity of the trading product, and a lowest price for selling the quantity of the trading product.*

The Examiner asserts that paragraphs 111 and 116 of Korhammer teach this limitation. Specifically, he states the following:

> Korhammer teaches determining that the selected market center offers at least one of: a highest price for buying the quantity of the trading product, and a lowest price for selling the quantity of the trading product (para. 0116 and 0111).

Final Office Action, p. 3 (emphasis added).

The Examiner is mistaken. As described under subsection **B.2.b**, paragraphs 111 and 116 describe updating an intention to trade message (ITT) or a market maker quote with a new "price level" or "bid price". Any adjustments are directed at the prices of all orders in a class—not an adjustment to a single order from a trader.

There is no disclosure or suggestion, whatsoever, in paragraphs 111 and 116 of Korhammer of a market center having either "*a highest price for buying the quantity of the*

trading product" or "*a lowest price for selling the quantity of the trading product,*" as recited in claims **31, 59** and **66**. In fact, the terms "highest" or "lowest" are not found anywhere in paragraphs 111 and 116.

Because the Examiner fails to show that all the limitations of claims **31, 59** and **66** are taught or suggested by Korhammer, he fails to establish a *prima facie* case of anticipation and obviousness with respect to these claims. The rejection of claims **31, 59** and **66** is thereby improper.

7. Sixth Group: Claims 53-57 and 59-66 – No *Prima Facie* Showing of Anticipation

SEPARATE ARGUMENT OF PATENTABILITY

The Examiner fails to show that all of the limitations of claims **53-57** and **59-66** are taught by the prior art.

The Examiner dismisses all thirteen claims with the following cursory statement:

> Korhammer teaches a processor and a memory, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method (figs. 1, 5-6, and 9-11). Korhammer discloses a computer system with update capability which has to have instructions to be executable.

Final Office Action, p. 4. The Examiner appears to assert that these two cursory sentences adequately explain how every element of thirteen different claims is disclosed. Yet, the Examiner completely ignores substantial portions of the claims in his rejection.

For example, independent claims **53** and **60**, respectively, recite:

> 53. An apparatus comprising:
> a processor; and
> a memory, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 19.
>
> 60. An article of manufacture comprising:
> a storage medium, in which the storage medium stores instructions which, when executed by a processor, direct the processor to perform the method of claim 19.

Because claims **53** and **60** are written as referential claims, each claim also incorporates the following elements of claim **19** (the claim in which it references):

> … receiving an order for a quantity of a trading product;
> identifying a plurality of market centers that are able to match the order;
> receiving, for each market center, a respective price for the order;
> comparing each of the received prices to determine a best price for the order;
> *determining a respective best price policy for each market center, in which the respective best price policy indicates an action that is taken by the market center in response to the best price;*
> *adjusting the received price of each market center in accordance with the respective best price policy of the market center;*
> selecting, based on the adjusted price of each market center, a market center from the plurality of market centers; and
> routing the order to the selected market center.

Id. (emphasis added).

The Examiner has provided no evidence, whatsoever, showing that Korhammer teaches any of the incorporated acts of claims **53** and **60**. In particular, as previously argued under subsection **B.2**, the Examiner has provided

no evidence demonstrating that the cited-portions of Korhammer teach or suggest "*determining a respective best price policy*" or "*adjusting the received price... in accordance with the respective best price policy*," as recited by claims **19, 53** and **60**.

Likewise, the Examiner also fails to provide any evidence showing that Korhammer teaches any of the incorporated acts of dependent claims **54-57, 59** and **61-66**.

Because the Examiner fails to show that all the limitations of claims **53-57** and **59-66** are taught or suggested by Korhammer, he fails to establish a *prima facie* case of anticipation and obviousness with respect to these claims. The rejection of claims **53-57** and **59-66** is thereby improper.

C. Rejection Under 35 U.S.C. § 103(a)

Claims **28** and **58** were rejected under 35 U.S.C. § 103(a) as being unpatentable over Korhammer in view of Pourhamid. Final Office Action, p. 4. There is no *prima facie* case of obviousness for any of the claims, as the Examiner fails to show that Korhammer and Pourhamid disclose or suggest all of the limitations of claims **28** and **58**.

Furthermore, the Examiner fails to provide any motivation to modify Korhammer with Pourhamid. All factual findings of the Patent and Trademark Office must be supported by substantial evidence. Since motivation to modify is a factual finding, it must be supported by some evidence. Because the Examiner does not provide any evidence to support the motivation

to modify or combine Korhammer with Pourhamid, he has not established a *prima facie* case of obviousness with respect of claims **28** and **58**.

1. Legal Standard – *Prima Facie* Showing

As described above under section **B.1**, the initial burden of presenting a *prima facie* case of obviousness is upon the Examiner. In re Oetiker, 977 F.2d at 1445. To reject claims under 35 U.S.C. § 103, an Examiner must show an unrebutted *prima facie* case of obviousness. *In re* Rouffet, 149 F.3d 1350, 1355 (Fed. Cir. 1998). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re* Royka, 490 F.2d 981 (CCPA 1974). If the Examiner fails to establish a *prima facie* case of obviousness, the rejection is improper and will be overturned. *In re* Rijckaert, 9 F.3d 1531, 1532 (Fed. Cir. 1993); Novamedix Distrib. Ltd. v. Dickinson, 175 F.Supp. 2d 8, 9 (D.D.C. 2001).

In addition, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference.

Graham v. John Deere Co. requires that there be motivation. Graham v. John Deere Co., 383 U.S. 1 (1966). This motivation does not exempt from the requirement of *Lee* and *Zurko* to have the finding be supported by substantial evidence. *In re* Lee, 277 F.3d 1338, 1342 (Fed. Cir. 2002); *In re* Zurko, 258 F.3d 1379, 1383-1386 (Fed. Cir. 2001). Thus, the Examiner must support with substantial evidence of record a factual finding of a suggestion or motivation to modify a reference. Novamedix Distrib., 175 F. Supp. 2d at 9; ***In re*** Zurko at 1383-1386 (Fed. Cir. 2001); *In re* Lee at 1342 (Fed. Cir. 2002).

Although the teachings, suggestions, or motivations need not always be written references, the obviousness test must proceed on the basis of *some* substantial evidence of record. *See* Ortho-McNeil Pharmaceutical v. Mylan Labs, 520 F.3d 1358, 1365 (Fed. Cir. 2008).

Although an obviousness analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, the rejection of a patent on obviousness grounds cannot be sustained by mere conclusory statements. KSR Int'l Co. v. Teleflex, Inc., 127 S.Ct. 1727, 1741 (2007). There must be some articulated reasoning with some rational underpinning to support a legal conclusion of obviousness. *Id.* A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. KSR Int'l Co., 127 S.Ct. at 1741. It is important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed invention does, since claimed discoveries almost of necessity will be combinations of what, in some sense, is already known. *Id.* A factfinder must be aware of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. KSR Int'l Co., 127 S.Ct. at 1742.

2. Eighth Group: Claim 28 – No *Prima Facie* Showing of Obviousness

a. *The Examiner has ignored the limitations of claims 28.*

SEPARATE ARGUMENT OF PATENTABILITY

Neither Korhammer or Pourhamid , alone or in combination, disclose or suggest the following limitations in claim **28**:

> *...determining that at least one market center credits a transaction rebate; and*
>
> *adjusting the price of the at least one market center in accordance with the transaction rebate.*

Although the Examiner concedes that "Korhammer does not explicitly teach rebate information," as taught by claims **28**, he asserts that paragraph 2 and 43, as well as figures 1 and 3, of Pourhamid do. Final Office Action, p. 4.

The Examiner is mistaken. Paragraph 2 of Pourhamid describes, in broad terms, an idea for helping consumers remain actively interested in an issuer by having a "coupon or credit award incentive system" in which the "consumer [is] a part owner of the issuer company." Pourhamid, para. 2. Figure 3 and paragraph 43 describe transferring the coupon and reward credit information from the issuer's system to the accounting system in the exchange. *See, id.* at figure 3, para. 22, 43. Specifically, paragraph 43 states, in relevant parts, the following:

> FIG. 3 shows how the information for generated coupons on every merchant's system is transferred to the exchange central system. The credit coupons file [sic] on the merchant system is copied to a temporary file. The temporary file is transferred to a day file on the exchange system. *The amount of credits in [a] temporary file is subtracted from the credits in the original file and the temporary file is cleared.*

Id. at para. 43 (emphasis added).

Nowhere in the cited portions of Pourhamid is there a description of "*adjusting the price of the at least one market center in accordance with the transaction rebate,*" as recited by claim **28**. At best, paragraph 43 of Pourhamid describes subtracting the "amount of credits in [a] temporary file" from the "amount of credits in [an] original file." *Id.* However, this description has absolutely no relevance to "*adjusting the price of a market center... in accordance with the transaction rebate*," as recited by claim **28**.

In fact, there is no discussion in the cited-portions of Pourhamid of a "*market center*", much less adjusting the price of a market center with a "*transaction rebate*."

The figures also fail to teach or suggest the feature: "*adjusting the price of a market center… in accordance with the transaction rebate,*" as recited in claim **28**.

As described above, Figure 3 depicts a flow chart of the routine for transferring the consumer's coupon/reward credit information from the issuer's system to the accounting system in the exchange. *See* Pourhamid, para. 22.

Figure 1 of Pourhamid shows the relationship between the consumers, the issuers of the coupons and reward program, and the financial institutions. *See, id.* at figure 1, para. 20.

Neither figure provides sufficient evidence to support a disclosure of claim **28**. Because the Examiner fails to show all the limitations of claim **28** are taught or suggested by Korhammer or Pourhamid, he fails to establish a *prima facie* case of obviousness with respect to these claims. The rejection of claim **28** is thereby improper.

b. ***The Examiner fails to provide support for the motivation to modify Korhammer with Pourhamid***

SEPARATE ARGUMENT OF PATENTABILITY

The alleged motivation proffered by the Examiner for modifying Korhammer has absolutely no basis in the references themselves or in any other evidence of record. All factual findings of the Patent and Trademark Office must be supported by substantial evidence. Since motivation to modify is a factual finding, it must be supported by some evidence. The Examiner fails to provide *any* evidence to support the proffered motivation to modify Korhammer.

As discussed under subsection **C.2.a**, the Examiner concedes that Korhammer fails to disclose "*rebate information*," as recited in claim **28**. Final Office Action, p. 4. However, he provides no motivation, whatsoever, explaining why one of ordinary skill in the art would have been motivated to modify Korhammer to incorporate the claimed features of Pourhamid. Specifically, the Examiner states the following:

> Pourhamid discloses rebate information (para. 002 and 0043; figs. 1 and 3). He discloses credit coupons for stocks on the issuing company. The credit coupons will convert into valuable stocks. These credit coupons are valuable rebate information to later on be converted into stocks. *Thus, it would have been obvious to one of ordinary skill in the art to include rebate information as a credit coupon as discloses [sic] in Pourhamid.*

Final Office Action, p. 5 (emphasis added).

The Examiner fails to cite any references or any other evidence for why one of ordinary skill in the art would wish to selectively modify Korhammer with the "credit coupons" of Pourhamid. *Id.*

Nor is there any evidence for why one of ordinary skill in the art would have, at the time of the invention, known or desired to modify Friesen in order to "*include rebate information as a credit coupon.*" *Id.*

Thus, the Examiner's failure to provide any motivation for modifying Korhammer results in a failure to establish a *prima facie* case of obviousness for claim **28**.

Since there has been no evidence offered, and no reasoning based on evidence, for a motivation to combine or modify the references in the manner the Examiner has proposed, Applicants cannot address the obviousness rejection, and moreover Applicants need not address the obviousness rejection since a *prima facie* showing of obviousness has not been made.

3. Ninth Group: Claim 58 – No *Prima Facie* Showing of Obviousness

a. *The Examiner has ignored the limitations of claims 58.*

SEPARATE ARGUMENT OF PATENTABILITY

The Examiner fails to show that all of the limitations of claim **58** is taught by the prior art. In rejecting claim **58**, the Examiner reiterates the same argument that he used to reject claims **53-57** and **59-66** under 35 U.S.C. § 102(e):

> Korhammer teaches a processor and a memory, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method (figs. 1, 5-6, and 9-11). Korhammer discloses a computer system with update capability which has to have instructions to be executable.

Final Office Action, p. 5. *See also, id.* at p. 4.

As discussed under subsection **B.7.** , the Examiner completely ignores substantial portions of the claim in his rejection.

Claim **58** recites:

> 58. The apparatus of claim 53, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 28.

Because claim **58** is written as a referential claim, each claim also incorporates the following elements of claim **28** (the claim in which it references):

> … determining that at least one market center credits a transaction rebate; and

> *adjusting the price of the at least one market center in accordance with the transaction rebate.*

Id. (emphasis added). The Examiner has provided no evidence, whatsoever, showing that Korhammer or Pourhamid teaches any of the incorporated acts of claims **58**.

In particular, as previously argued under subsection **C.2**, the Examiner has provided no evidence demonstrating that the cited-portions of Korhammer and Pourhamid teach or suggest "*adjusting the price of the at least one market center in accordance with the transaction rebate*," as recited by claims **28** and **58**.

Because the Examiner fails to show that all the limitations of claims **58** are taught or suggested by Korhammer, he fails to establish a *prima facie* case of obviousness with respect to these claims. The rejection of claim **58** is thereby improper.

D. Conclusion

In view of the foregoing, Appellants submit that all of the pending claims are in proper condition for allowance, and the Board is respectfully requested to overturn the Examiner's rejection of these claims.

Respectfully submitted,

July 23, 2009

Date

____/Ruth J. Ma/_____

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VIII. CLAIMS APPENDIX

1-18. Cancelled.

19. (Previously Presented) A method comprising:

receiving an order for a quantity of a trading product;

identifying a plurality of market centers that are able to match the order;

receiving, for each market center, a respective price for the order;

comparing each of the received prices to determine a best price for the order;

determining a respective best price policy for each market center, in which the respective best price policy indicates an action that is taken by the market center in response to the best price;

adjusting the received price of each market center in accordance with the respective best price policy of the market center;

selecting, based on the adjusted price of each market center, a market center from the plurality of market centers; and

routing the order to the selected market center.

20. (Previously Presented) The method of claim 19, in which the order comprises one of:

a request to buy the quantity of the trading product; and

a request to sell the quantity of the trading product.

21-24. (Cancelled).

25. (Previously Presented) The method of claim 19 further comprising:

determining that the best price policy for at least one of the market centers includes a policy to match the best price; and

setting the price of the at least one market center to the best price.

26. (Previously Presented) The method of claim 19 further comprising:

determining that the best price policy for at least one of the market centers includes a policy to split the best price;

calculating an average of:

a best bid price defined by the best price; and

a best offer price defined by the best price; and

setting the price of the at least one market center to the calculated average.

27. (Previously Presented) The method of claim 19, further comprising:

determining that at least one market center charges a transaction cost; and

adjusting the price of the at least one market center in accordance with the transaction cost.

28. (Previously Presented) The method of claim] 19 further comprising:

determining that at least one market center credits a transaction rebate; and

adjusting the price of the at least one market center in accordance with the transaction rebate.

29-30. (Cancelled).

31. (Previously Presented) The method of claim 19, in which the act of selecting further comprises:

determining that the selected market center offers at least one of:

a highest price for buying the quantity of the trading product, and

a lowest price for selling the quantity of the trading product.

32-52. (Cancelled).

53. (Previously Presented) An apparatus comprising:

a processor; and

a memory, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 19.

54. (Previously Presented) The apparatus of claim 53, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 20.

55. (Previously Presented) The apparatus of claim 53, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 25.

56. (Previously Presented) The apparatus of claim 53, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 26.

57. (Previously Presented) The apparatus of claim 53, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 27.

58. (Previously Presented) The apparatus of claim 53, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 28.

59. (Previously Presented) The apparatus of claim 53, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 31.

60. (Previously Presented) An article of manufacture comprising:

a storage medium, in which the storage medium stores instructions which, when executed by a processor, direct the processor to perform the method of claim 19.

61. (Previously Presented) The article of manufacture of claim 60, in which the storage medium stores instructions which, when executed by the processor, direct the processor to perform the method of claim 20.

62. (Previously Presented) The article of manufacture of claim 60, in which the storage medium stores instructions which, when executed by the processor, direct the processor to perform the method of claim 25.

63. (Previously Presented) The article of manufacture of claim 60, in which the storage medium stores instructions which, when executed by the processor, direct the processor to perform the method of claim 26.

64. (Previously Presented) The article of manufacture of claim 60, in which the storage medium stores instructions which, when executed by the processor, direct the processor to perform the method of claim 27.

65. (Previously Presented) The article of manufacture of claim 60, in which the storage medium stores instructions which, when executed by the processor, direct the processor to perform the method of claim 28.

66. (Previously Presented) The article of manufacture of claim 60, in which the storage medium stores instructions which, when executed by the processor, direct the processor to perform the method of claim 31.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.